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September 30, 2011

Commissioner Paul Newman
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Re: Arizona Public Service Company 2012 RES Implementation Plan
Docket No. E-01345A-11-0264

Dear Commissioner Newman:

Thank you for your August 30, 2011 correspondence. APS appreciates the opportunity to continue our discussions regarding APS's 2012 Renewable Energy Standard (RES) Implementation Plan. Your letter touched upon many topics, and contained both overarching policy and detailed programmatic questions for each topic. In addition, your letter incorporated many inquiries originally put forth by other parties. Because of the breadth and depth of the inquiries in your letter, we took the liberty of organizing this response by the following topics: utility ownership of distributed energy facilities (DE) compared to third-party ownership, APS's School and Government (S&G) program, market-related factors, APS's residential incentives program, APS's commercial incentives program, transparency and compliance data, administrative costs and miscellaneous topics touching upon discrete programs. This letter addresses each topic in turn.

I. Utility Owned DE is more Cost Effective for APS Customers as a Whole.

A. Any cost inquiry must focus on the impact to non-participating customers.

The cost comparison between utility-owned generation (UOG) and third-party owned generation (TPOG) is a primary theme underlying questions regarding APS's Plan. Although third-parties may wish to constrain this cost comparison to the participating host, APS submits that looking at how UOG affects all customers is the only way to accurately assess cost. Viewed from that perspective, utility-owned DE can be more cost effective.[1] As Attachment 1 reveals,

[1] Solar Alliance's expert, Amy Guy Wagner, suggested that as between UOG and TPOG, "the total cost to ratepayers would be roughly equal," and APS agrees that under certain circumstances,

TPOG costs non-participating customers approximately 6% more than UOG under the incentive level and solar rate proposed in the Plan. The primary difference is that with TPOG, the generating facility reduces the net amount of electricity consumed by the host customer. This reduced consumption results in fixed costs that APS cannot recover from the host customer—and would be forced to recover from non-participating customers.

To the extent that one focuses on the participating school only, clear benefits nonetheless remain. APS requires schools to obtain a bid from a third party not affiliated with APS. And schools are not obligated to accept APS's offer. Thus, if APS's offer does not result in the most cost effective solution for that school, the school would presumably opt for TPOG. Further, APS's offer includes a fixed 20-year rate rider.[2] This rider insulates a school from potential rate increases for a set amount of energy production over those 20 years, resulting in sustained benefits for the participating school.

B. Solar Alliance's focus ignores non-participating customers.

Your letter also asked that APS answer certain questions raised in Solar Alliance's July 27, 2011 letter regarding UOG costs. For instance, Solar Alliance claims that APS somehow hides UOG costs in base rates. For the record, APS does not. This claim, however, and Solar Alliance's other claims reflect a misunderstanding of APS's position regarding utility-owned DE. APS only claims that viewed from the perspective of all customers, utility-owned DE is more cost effective based upon the math in Attachment 1.

Beyond utility-scale UOG, Solar Alliance cited Southern California Edison's (SCE) February 2011 Petition before the California Public Utility Commission (CPUC)[3] for the proposition that SCE believes utilities should own less DE because they are unable to compete with the private sector. According to Solar Alliance, SCE's Petition constitutes a "utility trend" that APS contradicts by seeking to expand utility-owned DE.

Reviewing the Petition, however, reveals that SCE was not starting a trend nor suggesting that utilities cannot compete with the private sector. In fact, SCE originally sought 250 MW of UOG, and filed the Petition in question only after the CPUC ordered 250 MW of UOG and 250 MW of TPOG. Moreover, the Petition still requested 125 MW of UOG, belying the idea that SCE believes utilities should not own DE or that SCE's Petition constitutes evidence of a broader trend regarding UOG. Finally, SCE only acknowledged that the private sector was sufficiently

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this could be true. *See* Arizona Corporation Commission Open Meeting, page 67:13 (Docket Nos. E-01345A-11-0264, E-01933A-11-0269 and E-04204A-11-0267, August 17, 2011).

[2] APS's current rider is called the Rural Schools Solar Program (RSSP). APS's proposed rider is called the Schools and Government Solar Program (SGSP).

[3] *See* SCE's Petition for Modification of Decision 09-06-049, dated February 11, 2011.

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competitive in California to merit additional capacity, not that the private sector was necessarily always a better option.

Ultimately, SCE's Petition urged a balance of UOG and TPOG, the type of balance that APS similarly seeks in its Plan. Arizona currently enjoys such a balance; by the end of 2011, third parties will own 32 MW of Arizona's total DE portfolio and APS will own 8 MW. The Plan proposes to essentially achieve parity between distributed UOG and TPOG. Given that UOG is more cost effective for APS customers as a whole, balancing UOG and TPOG is the appropriate course of action.

II. Clarifications Regarding APS's S&G Program

Your letter posed numerous questions regarding APS's S&G Program regarding varied topics. This letter addresses each below.

Q. Why does APS want to triple the Schools and Government program, while virtually eliminating the commercial PBI market?

A: Attachment 1 demonstrates how UOG is more cost effective for customers as a whole. Nonetheless, APS seeks a balanced portfolio of both UOG and TPOG. Moreover, APS's S&G Program extends solar to low income schools throughout APS's service territory that remain underserved. Expanding the S&G Program is not intended to crowd out the commercial PBI market, but instead extends solar to schools that third parties might not otherwise serve.

Q: What are the exact cost savings to the school?

A: APS assumes that this question seeks the cost savings that a specific school enjoys as a result of UOG, but it is not clear to what APS should compare the cost savings. If this question seeks a comparison between UOG and TPOG, APS notes that the focus of that inquiry should be on the impact to non-participating customers as discussed above and in Attachment 1. The participating school, however, also receives benefits from UOG. With an APS-owned system, a participating school can lock in a rate through the RSSP (or SGSP) rider for 20 years. This guaranteed rate essentially acts as a hedge against potential future rate increases for a portion of the school's energy consumption. A fixed 20-year rate also adds certainty to schools' budgeting process. Differences between schools, however, preclude identifying exact cost savings. Those differences include the Customer's energy usage and billed demand, as well as their parent rate schedule.

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Q: What are APS's practices in selling to schools, and how is APS characterizing the competitive bidding requirement?

A: Attachment 2 exemplifies how APS conveys information to school districts regarding both the UOG and TPOG components of the S&G Program. Please note, schools must attest to APS that the school has received a proposal for solar installation from a third party not affiliated with APS before proceeding with an S&G application.

Q: Is APS combining lighting and efficiency upgrades with solar, and if so, is that fair to competitors?

A: Whether they choose TPOG or UOG, all schools may avail themselves of the free solar daylighting system, and all qualifying schools may participate in APS's energy efficiency program.

Q: Are the most needy school districts being served?

A: Yes and no. APS's Project Ranking Matrix for TPOG filters out schools that might otherwise be able to afford solar facilities on their own. APS's UOG cannot serve economically-challenged urban schools, however, because of conditions on UOG adopted by the Commission in Decision No. 71274. Because schools located in metropolitan areas may be among those with the most need, APS's 2012 Plan seeks permission to expand its UOG offering to economically-challenged urban schools.

Q: Do APS's school solicitations comply with school procurement procedures?

A: A school must attest that it received a bid from a third party not affiliated with APS before APS will install a generating facility. This attestation requirement fulfills all applicable Commission requirements and strikes a balance between APS policing compliance with school procurement requirements and ensuring a competitive atmosphere for the S&G Program.

Q: Why are the S&G tariffs not available for third party owned systems?

A: These riders are host-only offers designed to function with the UOG model by freezing the customer's rate over 20 years for the portion of the bill attributable to a guaranteed level of solar production. In contrast, under a TPOG installation, the host customer is able to directly avoid—through net metering—the portion of the bill attributable to the solar system production. If TPOG customers received the RSSP or SGSP rate rider, they would in effect be receiving a similar benefit twice. Moreover, applying the RSSP to a TPOG model may be less beneficial to the participating school. With TPOG, a participating school receives a net-metered rate that is specific to time of use. That time of use component can result in monetary benefits not available under the RSSP.

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Q: What about using Bonding Capacity v. Available Bonding Capacity as school selection criteria?

A: Focusing on available bonding capacity roughly identifies those schools that lack the available capital to procure solar facilities on their own, whereas bonding capacity does not. But available bonding capacity is not sufficient on its own. Participating schools must also have at least 60% of their students on free lunch programs. Filtering schools by looking at both available bonding capacity and school lunch participation highlight the rural schools with the most need.

Q: How does eliminating competition in the S&G sector help drive down costs?

A: APS's S&G Program does not eliminate competition. In fact, 100% of UOG installations involve significant third-party participation, either as the party that actually accomplishes the installation or otherwise. Capacity numbers also belie the assertion that APS's S&G Program will reduce competition. In 2011, third parties own 75% of the facilities on schools and governments, and the Plan will result in 32 MW and 33 MW of TPOG and UOG, respectively. And importantly, UOG is limited to low income schools, a category of schools to which third parties may not offer services. Finally, by offering an additional option for these customers, APS will increase competition for the customers' benefit.

Q: Address adding $65.8 million to the Schools and Government program while reducing competition for that program. (SA July 27, 2011 Letter)

A: APS is not reducing competition for the S&G Program—the $65.8 million will support third party programs in 2012. Further, this sum of money is not *added* to the program; it is the 2012 budgeted PBI commitments for the 2011 S&G Program that the Commission already approved in APS's 2011 Plan. To the extent the Plan involves increased UOG, the benefits redound to non-participating customers and otherwise unserved schools.

Q: Per question 5, Schools and Government is only 18% of the planned capacity (670 kW of 3.75 MW) installed? If so, what is the hold-up? (SA May 27, 2011 Letter)

A: From the 2010 Program, 2.35 MW has been installed and 1.035 MW has been cancelled. APS anticipates that the remaining 359 kW will be installed in October 2011.

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Q: Is APS's actual production from schools' systems 6060 MWh from 3.75 MW of capacity rather than 6353 MWh? (Or, as AriSEIA asserts in its August 11, 2011 letter, production of 1080 kWh-AC/kW-DC per year.) Please explain why and how this affects school payback, and whether you agree with AriSEIA that the difference means that schools will pay $200,000 more for electricity over the 20 year contract term than if the school had contracted with a third party. (SA May 27, 2011 Letter)

A: Although APS cannot vouch for AriSEIA's calculations, APS agrees that 1,080 kWh/kW is too low. A more reasonable level would range from 1,500 – 1,550 kWh/kW.

Regarding a school's payback period with UOG, there is none. Under the UOG model, a school is not making an investment, but is enrolling in a rate. And because third-party Solar Service Agreements and the RSSP offers are both on a cost per kWh basis, the production factor does not affect their economics.

Q: Please provide the S&G rate rider information to the Solar Alliance as requested. (SA May 27, 2011 Letter)

A: APS has responded to all outstanding Data Requests from Solar Alliance.

III. Market Stability

In addition to specific questions regarding the S&G Program, your letter sought APS's thoughts on market stability and competition. Although APS has not analyzed market trends in any systematic manner, it offers its best answers below.

Q: In January 2010, solar rebates were $3.00/watt, and 18 months later rebates are 1$/watt. Do you think *competition* has helped to drive the rebate cost down by two thirds in 18 months? How will it help ratepayers to drive down costs further by eliminating competition?

A: APS again emphasizes that the Plan will not reduce competition, but provides better cost benefits to APS customers as a whole. Regarding the referenced incentive reductions for residential photovoltaic systems, it does not appear that competition played a role. Nothing indicates that competition grew at this magnitude at the same time these incentives reductions occurred. Instead, the primary market change during this time period was a dramatic reduction in the cost of producing solar panels. It appears that as the solar industry has matured, the cost of technology has decreased and production techniques have become more efficient. At the same time as solar production costs plummeted, consumers of solar have become increasingly aware of the benefits and desirability of installing solar facilities. The confluence of increasing demand and declining costs made incentive reductions feasible and prudent.

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Q: Since the cost of solar has decreased so rapidly in the past 2 years, why does APS want to reduce PBIs by 30%, rather than the expected 15%? Is APS concerned about market stability?

A: It is precisely because the costs of solar have declined so rapidly that an opportunity exists to reduce incentives further. In its Plan, APS offered three options ranging from strict compliance with all renewable requirements to robustly growing renewables in Arizona. Fundamentally, the options present the Commission with a policy choice. APS notes, however, that a critical inquiry regarding incentive levels is market demand. If market demand exists for solar at lower incentive levels —because of the decreasing cost of solar, increased customer awareness or otherwise — then it appears that room exists to install more solar for the same budget by lowering incentives.

Q: Is APS concerned about the boom-bust cycle that would be created by its plan to cut the residential rebate program in half and essentially eliminate the commercial market?

A: As noted above, the Commission must make a policy decision regarding which Option will guide APS's renewable energy program. APS is aware that its Options will impact the commercial industry. Because existing installations already take APS to RES compliance, however, APS is obligated to present options to the Commission that permit the Commission to make decisions on how APS should proceed.

IV. APS's Residential Program

APS has answered a multitude of questions regarding the programmatic aspects of its residential programs. These questions focus on broader policy-type issues related to the residential program.

Q: In its 2011 plan, APS agreed to fund the residential program in 2012 at a level of $40 million. Why does APS now want to reverse that?

A: APS has not reversed its position regarding residential program funding levels. In its 2012 Plan, APS included an option that involves a $40 million budget for the residential program. APS notes, however, that existing residential participation in DE will cause APS to over comply with its RES DE requirements by approximately 125%.

Q: According to the AriSEIA letter dated August 11, 2011, the cost of a residential Renewable Energy Credit (REC) is now 3.8 to 3.2 cents/kWh. Please explain this value in light of the January 2009 RW Beck study that determined that distributed solar has a value of 7.9 to 14.1 cents/kWh.

A: The RW Beck study quantified the value of distributed solar on a utility's grid, including energy and other system benefits. By contrast, AriSEIA's valuation represents REC values as

described by the incentive currently offered to residential customers, and does not reflect energy and other system benefits.

Q: How does APS feel about AriSEIA's suggestion that applications for Q1 of 2012 be accepted starting October 2011?

A: APS requested and received approval to begin accepting applications for 2012 residential PV incentives as soon as reservations exhaust 2011 funds as discussed in Commission Decision No. 72592.

V. APS's Commercial Program

Q: Does APS agree with AriSEIA's assertion that APS-owned projects increase by nearly 3800% while 3rd party owned projects grow by 400% by 2015? If this is correct, how does this serve the ratepayers?

A: APS cannot verify AriSEIA's statement because it is unclear which numbers AriSEIA used to calculate the percentages of ownership noted in this question. The portion of AriSEIA's August 2011 letter from which this comment is included has a footnote referencing APS's **2011** RES Implementation Plan. The narrative in the 2011 RES Plan refers to a blend of ownership and third-party renewable generation projects that will be developed through 2015.

It is true that the 2012 RES Implementation Plan proposes an increase in utility ownership of renewable energy projects; however, APS ownership will (i) remain significantly below the amount of capacity owned and operated by third-parties; and (ii) provide customer benefits as previously described in this letter.

Furthermore, UOG benefits customers as a whole more than TPOG as detailed in Attachment 1. Because of this benefit, increasing UOG is appropriate and prudent. Accordingly, APS proposes a balanced portfolio that includes both UOG and TPOG.

Q: Please respond to the assertion by Green Choice Solar and others that APS is allowed to 'hide' some PBI costs in rate base.

A: There are no hidden costs in base rates for PBIs; the RES funds all PBIs as described in Exhibits 4C and 4D to the Plan.

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Q: Why does APS want to change the current 14.5 cent/kWh 15-year PBI and 13.2 cents/kWh 20-year PBI price for commercial projects?

A: Incentive levels on competitively awarded projects in the standard program have decreased to well under $0.10/kWh. The market will support lower incentives. And reduced incentives result in more solar for with the same budget which ultimately maximizes benefits to APS customers.

VI. Transparency and Compliance Data

Regarding how APS reports its data, your letter sought several specific items of data and requested that APS take certain actions to help stakeholders. For instance, your letter requested that APS (i) enable stakeholders to export data from excel spreadsheets; (ii) add a column identifying "Days Until In-Service Deadline" on the Arizona Goes Solar website; (iii) facilitate a comparison of required, expected and actual generation; (iv) address data inconsistencies; and (v) explain the apparent high level, and APS's reporting, of project cancellations including how many projects are beyond the 270 day mark.

As part of APS's continuing effort to work with industry stakeholders on sharing information, APS met with stakeholders both before filing the Plan, and hosted four stakeholder workshops since filing the Plan. During these sessions, APS addressed concepts central to the questions posed by all stakeholders, including:

- Actual installed DE capacity and the distinction between installed and reserved capacity as reported in the Company's annual compliance plans;
- APS policy regarding project extensions depending on the level of demonstrated progress or financial investment by the customer or developer;
- Historical and current cancellation rates for both commercial and residential projects, as well as stricter mandates for meeting development milestones;
- Project status of numerous commercial projects in advanced stages of development; and
- New reporting tools that may help provide the solar industry with additional information about PBI project status.

All of these items are works in progress. APS is committed to working with stakeholders to develop the appropriate course of action that will address stakeholder concerns. APS continues to host these forums and will continue to provide the information needed to track the commercial

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DE program. Based on discussions with stakeholders through September 2011, APS believes it has satisfactorily addressed data consistency and cancellation issues and has provided industry with ample opportunity for further clarification or comment. APS looks forward to promptly and completely responding to additional questions as they arise.

Beyond these broader issues regarding transparency and compliance reporting, your letter highlighted specific inquiries to which APS responds below.

Q: Please 'unbundle' the 2010 and 2011 data, breaking out compliance data by year.

A: APS did not bundle 2010 and 2011 data. As discussed with stakeholders, data may have appeared bundled because APS only counts energy produced in a given year for compliance purposes if the generating facility producing that energy is on line before the end of that year. Thus, APS may have granted a reservation in 2010, but not counted the energy ultimately arising from that reservation if the generating facility behind the reservation did not come on line until 2011.

That a single generating facility can obtain a reservation in one year, but not contribute to overall RES compliance until the next year, can appear as bundling to the outside observer. APS has put forth significant effort in clarifying nuances such as these, and continues to work with stakeholders to maximize transparency. Moreover, APS files detailed budget exhibits with its RES Plans that itemize the programs and costs comprising its total program budgets in each of the five years of the required reporting period. As part of the stakeholder meetings leading up to and including September 2011, APS identified where the Plan lists the information requested. For example, APS recently hosted a meeting where it explained Exhibits 2A and 2B of its 2012 RES Plan in detail. Those exhibits include the unbundled costs and programs associated with the three Plan options. Attendees had numerous opportunities to ask questions or seek clarification during this session. APS believes that stakeholders were satisfied with the discussion and, although stakeholders may continue to disagree with aspects of the Plan, appear to have no further questions as to how APS organized and described programs and costs in the Plan.

Q: Please answer the questions in Solar Alliance's May 27th letter under question 3: "APS is obligated to achieve a 50-50 split between residential and non-residential DE, as measured by MWh. However, APS did not achieve this division for non-residential DE in 2010. Please explain why."

A: APS achieved 87% of its overall requirement for non-residential DE in 2010. Although the PBI program experienced an increase in overall demand, the actual number of installations for the year was less than expected and authorized under APS commitments to TPOG. This likely resulted from increased uncertainty due to the adjudication process at the Commission regarding whether third-party systems on schools, government and non-profits should be regulated as Public

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Service Corporations. Although many projects were put on hold pending the Commission's decision in the matter (which the Commission issued in July 2010), APS saw a surge of non-residential installations during the 4th quarter of 2010 and the 1st quarter of 2011.

Q: Please answer questions regarding the Freeport McMoRan project, including whether (i) that project displaced other projects; and (ii) APS will need to request more money from the Commission to secure additional energy production in an amount equal to that produced by the Freeport project.

A: APS will not be able to assess how much energy the Freeport McMoRan project produced until after the project comes online in April 2012. Although APS is currently over compliance for non-residential projects, APS cannot guarantee it will over comply by the exact amount of energy that the Freeport project would provide until APS can accurately assess how much energy the Freeport project produces. That will not occur until the following year because the requirement is measured as a percentage of retail sales. APS provides frequent status updates throughout the year regarding the program via stakeholder meetings.

Q: In April 2011, the ACC approved two wholesale DE projects from the APS April 2010 auction. Is APS going to count those projects in its 2010 progress, and if not, where will those projects be counted?

A: The above-referenced DE contracts are not part of, and will not count towards, the wholesale DE program. Instead, they are part of the company's DE RFP program initiated in 2008. Currently the only contract that counts toward the wholesale DE category is a portion of the Snowflake White Mountain Power biomass generator.

The 2010 output from the DE RFP contracts will not count toward compliance because they will not be in operation until a later date. When those contracts are fully operational, APS will count those contracts toward its non-residential DE targets. Exhibit 4A (line 10) of the Plan provides the most current estimates of how much energy the DE RFP contracts will produce. The contracts will first contribute to APS's RES target in 2012.

Q: How much interest accrues on the program annually, where it is held, and what happens to it at the end of each quarter or year.

A: APS does not accrue interest on RES program funds. Program funds would be considered in a lead-lag study and addressed in the Cash Working Capital analysis of a rate case.

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Q: How does APS feel about AriSEIA's suggestion that if the residential market is over compliance, that the excess MWhs go to the Settlement Agreement solar requirements?

A: As permitted by the 2009 settlement agreement, the Plan counts all renewable energy production, including both residential and non-residential DE output, towards the 2009 settlement production target. APS plans to comply with all renewable requirements in the most cost effective manner possible. It is not clear, however, that using residential incentives to do so is the most cost effective means to meet those requirements.

VII. Administrative Costs

No doubt most, if not all, stakeholders—as companies that have their own administrative costs—understand that administrative work is the oil that keeps the program engine running smoothly and efficiently. APS's administration budget remains within 10% of the program budget—a budget percentage that places APS's renewable program in the top tier nationwide. APS invites inquiries, such as those below, regarding the specifics behind APS's administrative costs.

Q: Please identify where stakeholders can view the quarterly reports contemplated by an amendment offered by former Chairwoman Mayes.

A: APS is no longer required to prepare quarterly reports. Decision No. 71686 ordered APS to replace quarterly reports with weekly updates on APS's website. As contemplated in discussions between APS, Commissioners, and industry representatives during an April 2010 Open Meeting, APS provides this weekly report on both aps.com and ArizonaGoesSolar.org.

Q: Please provide data regarding the number of full time employees that work on processing applications for the solar PV incentive program.

A: APS employs three individuals that process residential program applications, one employee that processes commercial program applications, three employees that manage non-residential projects and four administrative employees, including the supervisor.

VIII. Miscellaneous Inquiries

The scope of your letter resulted in several questions that did not fit neatly into any of the previous categories. This letter addresses each below.

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Q: Identify the costs and benefits of retroactive meter installation.

A: Installing meters on solar facilities—both past and present—will ensure that APS customers receive the renewable energy for which they paid. Currently, customers must read their own meters, record what they read on a piece of paper and send that paper to APS. This cumbersome process risks inaccuracies and error. Retroactive meter installation will end this antiquated practice and permit APS to efficiently and accurately validate system production levels.

In addition, meters add significant value to resource planning. Solar facilities have variable production and inevitably degrade. Without meters, APS can only predict how much energy each facility will produce. As more and more solar facilities are installed on APS's system, understanding production becomes more important. Because meters provide actual, real-time production data, they form a key building block of an accurate resource plan.

As contemplated by the Uniform Credit Purchase Program working group and required by the APS Distributed Energy Administration Plan, all distributed energy installations are required to provide a meter socket to accommodate a utility production meter installation. The Plan proposes to leverage both existing and future meter sockets for installing meters on 5,150 customer solar facilities each year from 2012 through 2015. Although the ultimate number of meters deployed will depend upon incentive program funding, ACC approval, customer adoption rates and locations, etc., the cost over this time period will be $1.9 million.

Q: Why should ratepayers fund an 'integrated pilot' that combines smart grid, EE, Demand Response and Distributed Generation when the Flagstaff pilot will do much of the same?

A: The Integrated Pilot and the Flagstaff Pilot focus on fundamentally different concerns. The Flagstaff Pilot studied how a high concentration of solar in a single area may impact APS's system. The Integrated Pilot, on the other hand, will study the intersection of energy Efficiency (EE) and DE, and how EE and DE might complement each other in a manner that benefits APS customers over the long term.

Q: What has APS's Research and Development (R&D) efforts produced and how does APS feel about the collaborative process suggested by the Solar Alliance?

A: Without R&D, APS and Arizona would be stumbling blindly into the next generation of technology. Worse, APS would have little to no understanding of how the current generation of technology impacts APS's system, or even how technology might complement or otherwise enhance existing attributes of APS's business. R&D is not often flashy or exciting. And at times, R&D is an easy target for budget cuts when there is not enough funding elsewhere to accomplish everything the industry wants to do. This is unfortunate because without the thoughtful and intelligent consideration of what comes next, Arizona will quickly leave its position as a leader in

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the solar industry and be relegated to playing catch up, always at the mercy of what thought leaders in the industry choose to study—and share. Being in such a position would risk serious long-term harm to APS customers.

The success of the solar industry's initiatives, APS programs and our customer's interest in solar energy has provided a dramatic and fast moving increase in the addition of solar and other renewable resources. APS currently sees a dramatic increase in renewable resources on its systems, both in the field distribution systems and internal operations. This increase in variable resources for the most part is located on and impacts the local distribution systems and its feeder networks. These systems are critical to our customer's reliable service and we must assure reliability under conditions where high levels of variability and intermittency exists. Additionally, as renewable resources increase on our distribution system we expect to see increased pressure on our transmission system and how we operate our generation assets. Our current set of studies is to assure that the energy produced from renewable sources such as solar and wind, which are clean and climate-friendly but also intermittent, do not interfere with reliability.

In addition to assuring continued reliability for its customers, APS must continue to work to assure that we are getting full value out of this new set of resources. A strong understanding of how variable resources and associated technologies impact or support the energy distribution system, transmission system and operations is essential. APS's current set of technical studies and research is key to developing this strong base of understanding and in turn assuring that we are integrating distributed resources as a cost effective generation resource for our customers. The study of new renewable technologies and enabling technologies is also important to assure that our customers are receiving renewable resources that are the best value and ready for deployment as generating assets for the life of the facilities. Studies and research activities occurring now around Solar Augmentation, Energy Storage and Concentrating PV are examples of such study.

Our partnerships with the Department of Energy, academia, industry and research institutes (such as the National Renewable Energy Lab (NREL), Sandia National Labs (Sandia), Electric Power Research Institute (EPRI) provide valuable opportunity to collaborate and assure alignment with industry goals and objectives. By maintaining an active and leadership role in these discussions; industry, APS' ratepayers and the utility will benefit by a coordinated, efficient and cost effective integration of variable renewable resources in the future.

APS supports a stakeholder process to review current and proposed initiatives for research and studies. APS held a program update and stakeholder review and presentation of initiatives on May 25, 2011 before final development of the 2012 Plan. Attendees included representatives from Arizona State University, Northern Arizona University, University of Arizona (AZRise), Science Foundation of Arizona, Western Resource Advocates, Electric Power Research Institute (EPRI), Salt River Project and Tucson Electric Power. APS plans to continue these stakeholder review

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meetings on a semi-annual basis and welcomes the participation of Solar Alliance and industry representatives.

Q: Why should ratepayers pay for solar coaches when there are no rebates available?

A: A solar coach is an unbiased, third-party—employed by a not-for-profit organization—that helps customers understand the complicated solar marketplace. Solar coaches shed light on all aspects of solar-related decision-making, such as how to select a reputable installer, how to assess whether an installer's cost and savings claims are valid, system sizing, tax credits, available incentives, etc. But APS believes that reputable industry participants welcome the participation of solar coaches who can guide customers to the best solar installer for that particular customer's needs.

Beyond helping customers, solar coaches ultimately help solar installers. The consumer decision-making and purchase cycle for solar is long, ranging from six months to over two years. Customer attention and interest may wane over this time. Changing incentive levels may confuse customers. Solar coaches promote stability in the marketplace by keeping customers informed and interested as unbiased advisors unmotivated by profit. Solar coaches also help keep demand for solar strong over time by, among other items, shortening sales cycles for installers by educating customers.

Q: The 13 c/kWh LCOE bid cap: What percentage of the April 5 bids came in under the LCOE bid cap?

A: The bid cap of 13 cents/kWh applied to PV projects only. All bids were under the cap.

Q: It appears that APS is asking for conferral of at least a portion of Arizona Production Tax Credits to APS as a part of the bid process for the Small Generation Standard Offer program. Since APS is solely buying output, it does not make sense that the utility should require conferral of PTCs. Please explain.

A: An individual bidder's business structure and characteristics render their eligibility for the Arizona Production Tax Credit uncertain. This uncertainty drove APS to propose splitting the tax credit between the bidder and APS's customers—not APS itself—to maximize the benefits to APS's customers.

Q: Range of bids: We look forward to a full reporting of the results of the April 5 APS solicitation with the highest, lowest, and median bids. Please clarify when we can expect to see this.

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A: This information is competitively confidential. Because releasing this information could harm APS's ability to garner the lowest renewable prices for its customers, APS cannot provide this information to market participants. Note, however, that APS has provided this information in response to Data Requests from Commission Staff.

Q: PBI security deposit: Please explain why APS did not develop and implement a security deposit/application fee as directed by the ACC.

A: In compliance with Commission Decision No. 72022, APS filed its PBI Security Deposit Proposal on January 28, 2011. This proposal is pending consideration by the Commission. APS also incorporated its security deposit proposal into the 2012 Plan.

Q: Please comment on the security deposit process, whether a 5% deposit within 7 days is too onerous and whether reducing the deposit to 2%, returning interest and not requiring customers to forfeit the deposit is a better approach.

A: APS supports any adjustments to the security deposit proposal that do not lessen the effectiveness of the deposit. Security deposits play a zero sum game with cancellations. Industry stakeholders decry high cancellation levels and lament the resulting budgetary uncertainty. But security deposits are tangible commitments that filter out customers who are not serious about installing solar facilities. The more diluted the security deposit, the more likely cancellations become.

APS developed its security deposit proposal, based on input from industry stakeholders and developers, to strike a balance between the uncertainty caused by cancellations and the potential barriers to entry caused by security deposits. APS notes that industry stakeholders advocated deposit amounts far beyond the terms of APS's currently-pending proposal.

Security deposit proposals from industry participants seek to achieve the same objective of the APS proposal—a payment commitment that advances an incented project. APS believes the Commission seeks to establish a program that requires a reasonable commitment of initial funding from a project developer in order to receive the benefit of the PBI over 15-20 years. APS's proposal will achieve that goal.

Q: Request a discussion about the security deposit requirements. Request a discussion of 'reserved' capacity v 'actual generation. (SA May 27, 2011 Letter)

A: Security deposits must be tied to reserved capacity because under APS's proposal, a PBI applicant submits the deposit within 7 days of securing the reservation. If APS waited until learning actual production before quantifying the deposit, the deposit would not filter out less

serious participants. In addition, once actual generation figures emerge—after a successful installation that passes inspection and administrative requirements—APS refunds the deposit.

IX. Conclusion

Thank you for the opportunity to address your concerns and explore the nuances of both larger policy questions and programmatic specifics. APS continues to work with all stakeholders in an effort to promote transparency and increase understanding so that all can participate in the robust dialogue regarding the future of renewables in Arizona. APS hopes this letter contributes to that dialogue and looks forward to any clarifying questions you may have.

Sincerely,

Thomas A. Loquvam

TAL
Attachments

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Attachment 1

Schools and Government Distributed Energy Program
NPV Costs to Non-Participating Customers per Typical Installation
($000)

Current PBI Incentive Level / Current Solar Rate Level	3rd-Party Ownership	Utility Ownership	Difference	
1. Revenue Requirement	-	1,298.4	(1,298.4)	
2. PBI Payments	735.3	-	735.3	
3. Solar Rate Revenue (Schedule RSSP)	-	(651.8)	651.8	
4. Lost Revenue				
5. Fuel	242.4	-	242.4	
6. Non-Fuel	565.3	-	565.3	
7. Total Lost Revenue	807.7	-	807.7	
8. Guaranteed Bill Savings				
9. Fuel	-	235.5	(235.5)	
10. Non-Fuel	-	509.7	(509.7)	
11. Total Lost Revenue	-	745.2	(745.2)	
12. Avoided Fuel Expense	(242.4)	(242.4)	-	
13. Total	1,300.54	1,149.37	151.2	13%

Proposed PBI Incentive Level / Proposed Solar Rate Level	3rd-Party Ownership	Utility Ownership	Difference	
14. Revenue Requirement	-	1,298.4	(1,298.4)	
15. PBI Payments	623.9	-	623.9	
16. Solar Rate Revenue (Schedule RSSP)	-	(537.6)	537.6	
17. Lost Revenue				
18. Fuel	242.4	-	242.4	
19. Non-Fuel	565.3	-	565.3	
20. Total Lost Revenue	807.7	-	807.7	
21. Guaranteed Bill Savings				
22. Fuel	-	242.4	(242.4)	
23. Non-Fuel	-	363.1	(363.1)	
24. Total Lost Revenue	-	605.6	(605.6)	
25. Avoided Fuel Expense	(242.4)	(242.4)	-	
26. Total	1,189.13	1,123.93	65.2	6%

Attachment 2

APS SOLAR FOR SCHOOLS & GOVERNMENT PROGRAM

APS Helps Schools & Government Entities Go Solar with Little or No Up-Front Cost

PROGRAM OVERVIEW

The APS Solar for Schools and Government Program is an innovative cooperative effort to enable publicly funded K-12 school districts, publicly funded charter schools and government entities to enjoy energy savings and receive the financial and tax benefits of going solar with little or no up-front capital investment. While the program offers three options, participants in any of the three are able to have near-term savings on their energy costs and more certainty around their long-term energy costs.

In the first year of this program, APS is hoping to help customers install more than 75 solar projects at school and government facilities throughout the APS service territory. The program is designed to offset 60,000 megawatt hours of energy consumption or generation over its first three years. This is equivalent to removing 5,400 cars from the road.

QUALIFYING SOLAR TECHNOLOGIES

The program includes solar photovoltaic (PV) generation (solar panels), solar thermal technologies (including solar space heating and solar space cooling) and solar daylighting systems installed onsite at school and government facilities in APS's service territory.

PROGRAM OPTIONS

As described below, APS customers can finance projects in one of three ways—through a Solar Service Agreement, an APS-owned system option (for schools only), or a lease arrangement for solar daylighting.

With a Solar Service Agreement (SSA) schools or government entities can install either a solar electric or solar thermal system with no up-front or maintenance costs. Through an SSA, a third party selected by the school or government entity installs and owns the system and then charges the school or government entity a negotiated rate for the energy produced on a monthly basis.

A second option for installing a solar project with no up-front or maintenance costs is by hosting an APS-owned solar electric (PV) system. With the APS-owned system option, APS owns and maintains the solar electric system and then charges the participating school a monthly solar rate for a portion of the energy used over a 20-year term. This option is available for up to 25 percent of the total energy deployed on school facilities. This option is only available to rural schools that serve a high percentage of students on the National Free and Reduced Lunch Program and are in school districts with limited bonding capacity. To qualify for this program, the school district must first obtain a proposal from a solar developer for third-party ownership.

If the school or government entity is interested in solar daylighting, a third option is available, which is to participate in a lease program through an APS partnership with a local financing institution.

	Solar Service Agreement	Utility-Owned	Lease
Photovoltaic	x	x	
Solar Thermal	x		
Solar Daylighting			x

FIRST YEAR BONUS INCENTIVE

As a special incentive for early participants, school districts that receive APS project approval in 2011 for an eligible solar electric or solar thermal installation will be reimbursed up to $30,000 for the cost of a solar daylighting system.

FOR ADDITIONAL INFORMATION

For details on the program, such as participation requirements, selection process and other information on the APS Schools and Government Solar Program, please visit aps.com/solarschoolgovt. For other questions, please email us at solarschoolgovt@aps.com.

Program funded by APS customers and approved by the Arizona Corporation Commission.
*Incentive and funding levels are subject to change based on Arizona Corporation Commission Order.